(b) The overall cost of wind power projects ranges from Rs. 3.50—4.00 crores per MW and they generate from 2—2.5 million units per MW.

(c) The cost of generation from wind is in the range of Rs. 2.25—2.75 per kwh, depending upon the site.

Alcohol as A Source of Alternative Fuel

1008. SHRI BHUPINDER SINGH MANN: Will the PRIME MINISTER be pleased to state :

(a) whether it is a fact that alcohol is used as an alternative fuel in some countries of the world;

(b) if so, the details thereof; and

(c) what are the reasons for not using the same as an alternative fuel in India;

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) and (b) Yes, Sir, Alcohols viz methanol and ethanol are used as alternative fuels for diesel and petrol vehicles in Brazil, USA, Argentina and Kenya etc. Alcohols are blended with petrol and diesel in different ratios, 10— 30 per cent by volume and used in vehicles. Tn Brazil, pure alcohol vehicles have also been developed and are in vogue as that country uses most of its alcohol productitto for substitution of imported petroleum fuels.

(c) In India, ethanol produced from mollases is used as chemical feed stock leaving hardly any surplus for use as fuel. Production of methanol in fertiliser industry has also been limited, viz-a-viz the total automotive fuel requirements of the country. Notwithstanding inadequate availability of alcohols, research and development work has beein successfully undertaken on use of methanol and ethanol in diesel and petrol vehicles. It has been possible to achieve about 14 per cent diesel replecement in diesel buses and 10 percent blending with petrol for petrol vehicles in demdnstration projects. It is now proposed to expand the use of alcohols in transport vehicles for environmental benefits and partial petroleum replacement as increased availability of alcohols is now feasible with production of methanol from natural gas and sizeable reduction in import duty on ethyl alcohol recently announced.

Huge Loans used for the Development of Wind Mills

1009. SHRI SATISH PRADHAN: Will the PRIME MINISTER be pleased io state :

(a) whether it is a fact that the Indian Renewable Energy Development Agency Ltd. has received a loan of 145 million dollars for the development of non-conventional energy sources;

(b) whether Government have made any allocation of this fund for development of windmills ; if so, what is quantum thereof; and

(c) whether the windmills will be deve loped for dual purpose of pumping water as well as development of energy ?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) Yes, Sir. The World Bank has sanctioned assistance of $ 145 million under Renewable Resources Development Project (RRDP) to Indian Renewable Energy Development Agency Ltd. (IREDA). This assistances includes a credit of US $ 115 million from International Development Association (IDA) and a grant of US $ 30 million from Global Environment Trust (GET) Fund and Swiss Development Cooperation to implement the project.

(b) Out of this fund, an allocation of US $ 28 million has been made for the development of wind energy projects.

(c) No, Sir. The assistance is made for development wind farm projects and hence exclusively for electricity generation,